

Remarks/Arguments:

Claims 1-11 and 23-34 remain for consideration in this application with claims 1 and 23 being in independent format. In view of the claims as they now stand, together with the remarks hereunder, the rejections of the April 20, 2005 office action must respectfully be traversed.

In the office action, the drawings were objected to because it appeared to the Examiner that portion of the y-axis on both Figs. 1 and 2 were cut off. Replacement drawings for Figs 1 and 2 have been provided. However, Applicants assert that the originally filed drawings were complete, and the Examiner is invited to clarify the objection if the data on the currently presented drawings remains unclear.

Claims 1, 9, 10, 23 and 30 were objected to for being unclear and/or for containing improper language. Specifically, the phrase “consisting of nothing” was objected to in claims 1 and 23 as being improper. The phrase “consisting of nothing” merely means that the functional group is not present or is non-existent. In light of this explanation, Applicants have not amended these claims and assert that such language is acceptable. Claim 9 was objected to for being dependent on itself, and has been amended to clarify that it depends from claim 8. Claim 30 was objected to for containing the improper language “in accordance with Example 20.” Applicants assume the Examiner was referring to that same phrase in **claim 34**, as such phrase is absent from claim 30. The required steps have been added into claim 34 to positively recite the method used in Example 20.

Claim 10 was rejected under 35 U.S.C. 112, second paragraph, for being indefinite and lacking proper antecedent basis for the recited “coating” in claim 9. Claims 10 and 11 have been

amended to clarify that they properly depend from claim 8. Accordingly, applicants assert that these rejections have been overcome.

Claims 1, 3-5, 8-11, 23, 25-27, 30-34 were rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen et al. (US 3,265,629). Jensen discloses a method of coating an active core using phase separation. The method taught by Jensen discloses the presence of an inner lipid layer surrounding an active core, which can be a fertilizer product, and an outer layer surrounding the inner layer and the core. In contrast, independent claims 1 and 23 recite that the polymer is in intimate contact with the fertilizer product. Because it is the outer layer in Jensen that could be a polymer and because this polymeric layer is separated from the fertilizer by the inner lipid layer, it cannot be said that Jensen teaches or even suggests having the fertilizer core be in intimate contact with the outer polymeric layer. In fact, the exact opposite teaching is given in Jensen because precoating the active core with the inner lipid layer is essential to successfully encapsulating the core using the methods disclosed by Jensen (See column 1, lines 23-46).

Claims 1 and 23 have been amended to include the limitation that the polymers are substantially water-soluble. Such an amendment clearly differentiates the present invention from Jensen wherein the claimed coating has the “unique characteristics” of being hydrophilic in nature, while at the same time not being dissolved by water (See column 2, lines 13-19). Therefore, not only does Jensen not disclose a method of using a single polymeric layer in intimate contact with the fertilizer product, it also specifically teaches away from using substantially water-soluble materials for the fertilizer coating. Accordingly, it cannot be said that the present invention is obviated by Jensen.

Claims 1-11 and 23-34 were rejected as being unpatentable over von Locquenghien et al. (US 6,187,074 or US 6,309,439) in view of Bonsignore et al. (US 5,563,238). Claims 1 and 23 have been amended to recite that the fertilizer product is coated with a polymer predominantly containing dicarboxylic subunits. Support for this amendment can be found in paragraph 0018 of the specification which states that "For purposes of the present invention, it is preferred to use dicarboxylic acids, precursors and derivatives thereof for the practice of the invention. For example, terpolymers containing mono and dicarboxylic acids with vinyl esters and vinyl alcohol are contemplated, however, polymers incorporating dicarboxylic acids were unexpectedly found to be significantly more useful for the purposes of this invention." Further, each of the given examples discloses polymers entirely comprising dicarboxylic subunits. Applicants contend as such, that the claimed polymers are not taught or suggested by either von Locquenghien or Bonsignore.

Specifically, von Locquenghien does not disclose a fertilizer product coated with a polymer predominantly comprising dicarboxylic subunits as von Locquenghien teaches the use of dicarboxylic subunits in the range of 10-30%. Further, there is no motivation to increase the amount of dicarboxylic subunits because von Locquenghien teaches that the preferred composition of the polymer ranges from 10-25% dicarboxylic subunits and from 75-85% ethylene. Bonsignore similarly does not disclose a polymer coating predominantly comprising dicarboxylic subunits as the polymers taught by Bonsignore are modified polylactic acid polymers which are different and distinct from the polymers of the present invention. As there is no motivation to increase the number of dicarboxylic acid subunits in von Locquenghien and no suggestion to use them at all in Bonsignore, no combination of the prior art can be said to render the present invention obvious.

Applicants further note that one of ordinary skill in the art would understand that von Locquenghien does not actually disclose a “water-soluble” polymer, despite the erroneous inclusion of the term “aqueous solution” therein. This is because the disclosed polymers of von Locquenghien are not water-soluble, but instead form a dispersion in solution. Those of skill in the art would be familiar enough with the polymers taught by von Locquenghien to know that polyethylene copolymers with more than about 60% ethylene therein are not water-soluble and that higher levels of carboxylated comonomers are required for water-solubility. Further, this knowledge was available prior to von Locquenghien as evidenced by US Patent No. 3,436,363. Accordingly, the water-soluble polymers of the present invention are not taught or suggested by von Locquenghien.

Claims 1-11 and 23-34 were rejected under 35 U.S.C. 103(a) as being obvious over Sanders et al. (US 6,596,831 or US 6,525,155). As these references constitute prior art only under 102(e), this rejection can be overcome by an oath or declaration under 37 C.F.R. 1.130 stating that the application and references are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 1.321(c). Attached hereto are such Declarations in accordance with 37 C.F.R. 1.130 from the Vice-President of Specialty Fertilizer Products, LLC and John L. Sanders, co-owners of both Sanders patents and also of the instant application. These Declarations establish that the subject matter of the Sanders patents and the presently claimed invention were, at the time the invention was made, owned by the same entities or subject to an obligation of assignment to the same entities, and that the inventor named in the present application is also a prior inventor under 35 U.S.C. 104. Attached also is a Terminal Disclaimer in accordance with 37 C.F.R. 1.130(a) and 1.321(c).

Therefore, this rejection has been overcome.

Sanders et al. ('155) was also used as a basis for a double-patenting rejection. As previously established, the '155 patent is commonly owned with the present application, and Applicants have attached a Terminal Disclaimer executed by the agent which overcomes this rejection. Accordingly, the Sanders references are not a bar to the patentability of the present invention. A n y additional fee which is due in connection with this amendment should be applied against our Deposit Account No. 19-0522.

In view of the foregoing, a Notice of Allowance appears to be in order and such is courteously solicited.

Respectfully submitted,

By



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